Advancing Solar in the Great Lakes Bay Region
MREP Meeting
December 12, 2012

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Project Partners

- Great Lakes Bay Economic Development Partnership
  - Bay Future
  - Midland Tomorrow
  - Saginaw Future
- Michigan Economic Develop

Project Goal

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To develop a set of specific and implementable recommendations to minimize existing barriers to residential and commercial solar adoption in local communities' permitting processes, zoning ordinances, and application procedures.

- City of Saginaw
- City of Midland
- Thomas Township
- Williams Township

Anticipated Impacts

- Reducing barriers to residential and commercial solar adoption
- Reducing solar installation “soft costs”
- Improving customer satisfaction with municipal processes
- Creating a platform for future expansion in the region and state

Project Scope

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- **Permitting/Zoning Process**
  - Information access
  - Fee structure
  - Inspections
- **Financial**
  - Incentives/grants (upfront)
  - Offset of utility bills (ongoing)
- **Awareness and Education**
  - Customer education
  - Product marketing
  - Trained workforce (installers, inspectors)
- **Utility Interaction**
  - Interconnection process
  - Net metering

Stakeholders

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Local Government

City of Saginaw
- Inspector & Public Services Director

City of Midland
- Utilities Dir., Planner, & Community Dev.

Thomas Twp
- Dir. Community Development

Williams Twp
- Supervisor, & Building, Electrical / Zoning

Installers
- Midland Solar
  - + 2 residential customers
- Electrician Association Trainer

State Gov't
- MPSC

Interested Parties
- GLREA
- Michigan Municipal League

Industry Suppliers
- Dow Solar
- Hemlock Semi-conductor

Utilities
Consumers Energy
- Interconnection Dept

Review of Best Practices

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National, State, and Local Research

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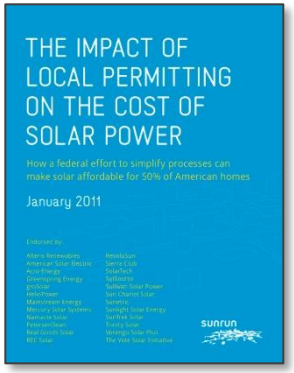
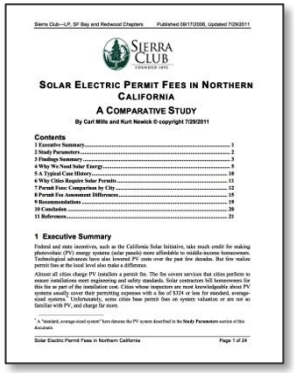
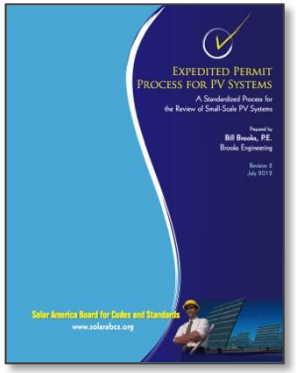
Solar Permitting Best Practices



The Impact of Local Permitting on the Cost of Solar Power

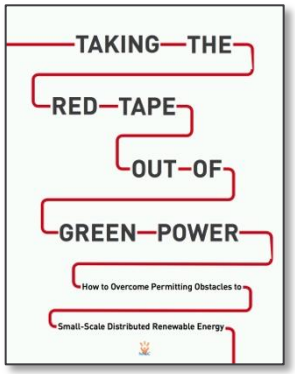


Solar Electric Permit Fees in Northern California

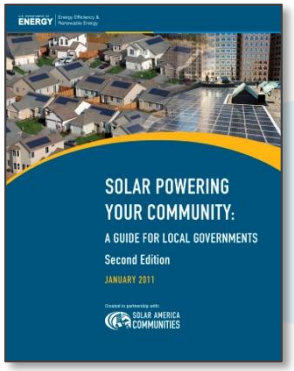


Expedited Permit Process for PV Systems

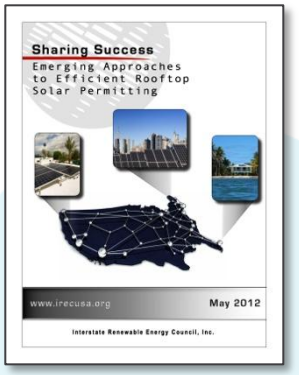
Solar Ann Arbor



Taking the Red Tape out of Green Power



Solar Powering Your Community: A Guide for Local Governments



Sharing Success: Emerging Approaches to Efficient Rooftop Solar Permitting

Best Practices Matrix

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SOLAR PV PERMITTING REPORTS SUMMARY									
Organization:	Interstate Renewable Energy Council (IREC)	SolarTech	Vote Solar	Sierra Club	SunRun, Inc.	Network for New Energy Choices (NNEC)	Solar America Board for Codes & Standards (Solar ABCs)	Solar America Communities (U.S. DOE)	Clean Energy Coalition
Org. Website:	www.irecusa.org	www.solartech.org	ww.votesolar.or	ww.sierraclub.o	w.sunrunhome.c	v.newenergychoices	ww.solarabcs.or	www.solaramericacommunities.energy.gov	ww.cec-mi.org
Report Title:	"Sharing Success: *Emerging Approaches to Efficient Rooftop Solar Permitting*"*	"SolarTech 'Top 10' List for Expedited Permitting" (Not a formal report)	"Solar Permitting Best Practices" (Not a formal report)	"Solar Electric Permit Fees in Northern California"	"The Impact of Local Permitting on the Cost of Solar Power"	"Taking the Red Tape out of Green Power"	"Expedited Permit Process for PV Systems"	"Solar Powering Your Community: A Guide for Local Governments"	"Solar Ann Arbor
Report Date:	May-12	N/A	N/A	Jul-11	Jan-11	Sep-08	Oct-11	Jan-11	Mar-10
Solar Permitting Recommendations									
Common submittal form for all jurisdictions		✔	✔	✔	✔	✔	✔	✔	✔
Flat permit fees, based on jurisdiction cost not project market value	✔	✔	✔	✔	✔	✔		✔	✔
Shorten permit review/decision time, allow over-the-counter permitting		✔	✔		✔	✔		✔	✔
Electronic permit submission/notification		✔	✔		✔		✔		
Reduce inspection appointment windows		✔	✔	✔	✔				
Fast-track application for contractors with reliable PV track records		✔		✔				✔	
Train jurisdictions' permitting staff in solar			✔			✔		✔	✔
Eliminate multiple inspections			✔		✔		✔		
Adopt Solar ABCs Standards					✔		✔		✔
Remove barriers to PV from building and zoning codes						✔			✔
Don't restrict PV on aesthetic grounds						✔			✔
Coordinate PV permitting procedures with nearby jurisdictions						✔			✔

* IREC report recommendations are broad but can be construed to cover many of the more specific recommendations listed by other reports.

Summary of Stakeholder Interviews

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Solar in the Bay Region

- Four municipalities in project have not seen many (if any) solar installations, but all welcome increased uptake of solar in the region
- Great differences between residential and commercial PV projects – in terms of scale/scope of permitting and inspection process as well as how projects implemented
- Impression that there isn't enough of a market for solar in Michigan

Permitting and Zoning

- Misconception that this is where barriers are
  - While there is room for improvement, not seen as major problem in this region
    - Currently have low volume of installations so hard to judge
- As technology advances, could become even less of an issue (e.g., solar shingles would only need a roofing and electrical permit, in certain jurisdictions)
- BUT this is an area where jurisdictions have control and can make improvements to process

Permitting and Zoning

- None use standard/template permits yet (e.g., Solar ABCs)
- No solar-specific prohibitive language in any of these municipalities, but no real supportive or clarifying language either
  - Exception: Thomas Township
    - "Overlay Zone" intended to eliminate commercial/industrial zoning issues that could arise if a company wants to install a solar manufacturing/research facility or solar farm
- Residential permit applications seem to be straightforward and fairly quick to process and complete (range from same-day to two weeks)

Permitting and Zoning

- Range of scale, method of permitting fees
- Range of types, number of inspections required
- Range of accessibility of fee structure, permits, information on permitting process

Other Barriers – Interconnection

- Impression that interconnection process is problematic, difficult
- Hard to tell if interconnection process is the problem because not enough demand at the moment
- Lack of incentives means lack of demand for solar
- Net metering rules are problematic
  - 20kW limit for “true” net metering; 20kW-150kW – modified net metering: only a portion of market rate of generated electricity goes to customer
    - Inhibits installation of large-scale solar PV
- “Self generation” definition too restrictive

Other Issues – Training

- Better installer and inspector training needed
- Some find NABCEP (national solar installation certification) requirement to be arduous and 'overkill' whereas others find it valuable
- Lack of projects means that even those with training don't have enough opportunity to see relevant projects
- Some mention of greater need for education of installers (knowing permitting process) as well as customers (understanding benefits to solar and net metering process, for instance)

Local Practices vs Best Practices

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Recommendations	MIDLAND	SAGINAW	THOMAS TWP	WILLIAMS TWP
Common permitting process, technical/procedural requirements, and submittal forms for all jurisdictions	NO	NO	NO	NO
Flat permit fees, based on jurisdiction cost not project market value	YES	NO - based on project valuation	YES - electrical, NO - building	YES, but with additional fees based on project complexity
Shorten permit review/decision time, allow over-the-counter permitting	YES (≤ 3 days)	NO (1-2 weeks)	YES - residential (1 day), NO - commercial (1 week)	YES (≤ 3 days)
Electronic permit submission/notification	NO	NO	NO	NO
Reduce inspection appointment windows	NO (> 1 day)	YES (specific time)	YES (specific time)	YES (specific time)
Fast-track application for contractors with reliable PV track records or projects of similar size or scope (i.e., simple residential)	NO	NO	NO	NO
Train jurisdictions' permitting staff in solar	NO	NO	NO	NO
Eliminate multiple inspections	YES (single inspection)	NO (in-process inspections req'd)	NO (in-process inspections req'd)	NO (in-process inspections req'd)
Adopt Solar ABCs Standards	NO	NO	NO	NO
Display permit fees and requirements on website, as well as procedures for obtaining permits	YES (but not solar-specific)	NO - not all fees on website / YES (procedures, but not solar-specific)	NO (fees) / YES (procedures, but not solar-specific)	NO - not all fees on website / YES (procedures, but not solar-specific)

Recommendations & Tools

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Top Recommendations

- Develop common practices, policies across all jurisdictions
  - *Adopt Solar ABCs*
- Create a solar permitting process checklist
- Provide clear, easy access to solar-specific permitting forms and fee structure

Permitting Process

- Coordinate solar permitting procedures with neighboring jurisdictions
- Develop a permitting process checklist
- Create expedited permitting process for “prescriptive systems”
- Shorten permit review and decision time
- Streamline the inspections process

Planning & Zoning

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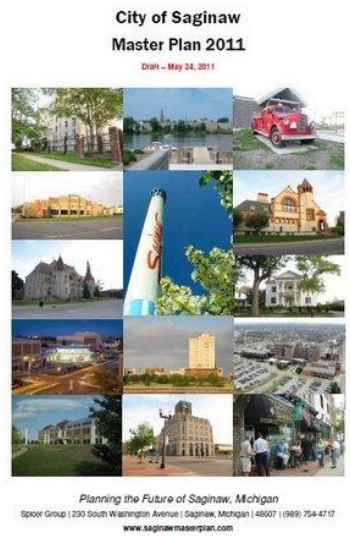
- Support area-wide solar installation through common planning document language
- Support area-wide solar installation through common zoning ordinance language

Midland's MASTER PLAN
Changes and Choices

THOMAS Township

WILLIAMS TOWNSHIP
Bay County, Michigan
WILLIAMS TOWNSHIP



Zoning

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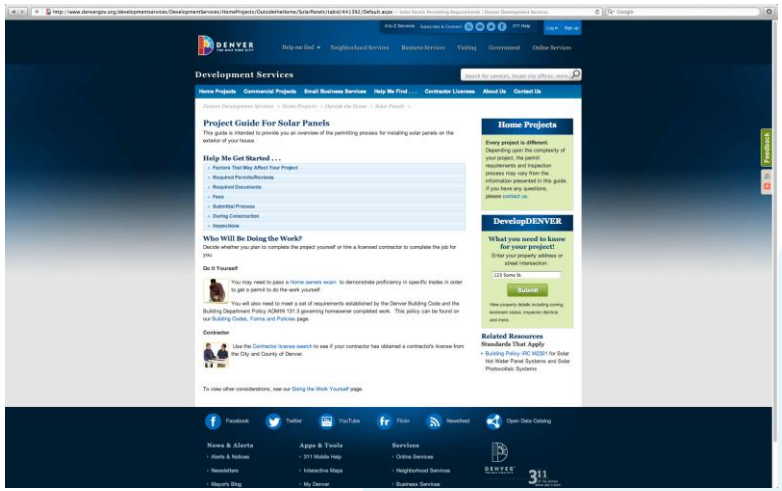
- Ensure solar is an allowable use and that local zoning ordinances do not prohibit solar installations
  - Specific focus on aesthetic restrictions that sometimes appear in homeowner associations, etc.
- Be proactive: identifying how solar should fit within each municipal district
- Explore existing examples: APA sample zoning ordinances:

  http://www.planning.org/research/solar/faq.htm
  - Thomas Twp: overlay zone model (agricultural)
  - Homer Twp: solar-specific zoning ordinances

Access to Information

- Present solar-specific information in easy-to-find place on municipal websites
- Develop a “solar pathway” – designated area of information, instead of buried within construction/building sections
- Outline of processes as well as fee structure
- Standardize fee structure?
  - Fees limited to cost recovery only?



Next Steps

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Next Steps

- Promote in the market
- Incentivize solar
- Encourage solar education
- Explore creative financing
- Examine utility and state policies

Renewable Energy Tools Program

- Best practices research
- Develop tools
  - Solar Permitting Guidebook
  - Urban Wind and Urban Bioenergy Fact Sheet
  - Electric Vehicle Fact Sheet
  - Renewable Energy Guidebook
- Deploy Tools
  - Pilot with Bay Area
  - Seminars
  - Social Media
- Develop Three-year Outreach Plan